THE MAGNETIC RESONANCE AMPLIFIER (MRA)

by Joel McClain and Norman Wootan

With low-level ultrasonic input signals, the Magnetic Resonance Amplifier (MRA) produces usable direct current power at levels above unity. This circuit is based upon the work and theories of John Ernst Worrell Keely, and is offered into the public domain in his memory.

Without lengthy discussion about the aether, tetrahedral geometric virtual rotation, mass aggregate resonance or the Rule of Nines (see article on page 56), it is possible to understand this circuit as basically a tuned magnetic and quartz amplifier.

However, it was necessary to study those subjects in order to design and build the MRA, so if you want to fully realise how it works, avail yourself of the files on *KeelyNet* which contain all of that and much, much more.

In the MRA schematic below, there is a tuneable low power oscillator which supplies a signal to one side of a barium titanite transducer. The opposite side of the transducer is connected to a primary coil which is wrapped around a barium ferrite magnet core. The opposite end of the primary goes back to the oscillator.

A secondary is wrapped around the primary and is connected to an ordinary bridge rectifier, and the output of the bridge is applied to a DC load. A filter capacitor can be used on the output of the bridge, and was used on the MRA which we built. Additionally, a load resistor across the capacitor will keep the output DC from getting too high as the circuit is tuned. We found that a 30-ohm, 10-watt resistor was sufficient.

Once this has been assembled, put a voltmeter across the output resistor to monitor the voltage rise as the circuit is tuned. Adjust the oscillator frequency to provide the highest DC output. During this process, be aware that the voltages across the piezo and the coil will be very much higher than the signal level which you are applying. We have seen combined voltages of almost 1,000 V AC with only 30 V AC of signal input.

When the circuit is tuned, the magnet will be 'singing' at around 8,000 to 11,000 Hz. If the piezo sings, you are exceeding its power capabilities and will need to reduce the number of turns on your primary. The frequency that resonates both the piezo and the magnet at optimum resonance will be three times (three octaves above) the frequency at which the magnet is singing.

This is the nine harmonics that are mentioned in the rule of nines.

To test the circuit, place a precision, high wattage, low ohm resistor in series with the output from the oscillator to the piezo, and measure the voltage drop. It should be very small, less than 0.1 V AC. Use this value to determine current in the series circuit, and then calculate power.

Next, measure the DC voltage across your output load resistor, and once again calculate power. You should be between three to four times above the previously calculated input power.
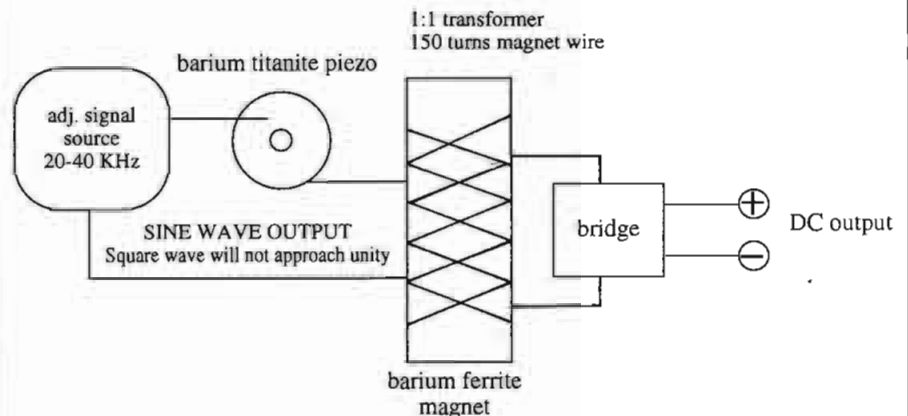
Once the circuit is in operation, you will note that the voltage will vary by 0.1 V DC or more, depending upon the time of day. This is due to the nature of etheric forces inherent in the Earth's magnetic field. Watch for peak voltage at or before sunrise.

In our circuit, we measured 0.084 V AC drop across a 2-ohm series resistor, for a total of 0.685 W dissipation in the primary. With this, we attained 2.75 W of output power and used this to drive a lamp and a motor. Increasing the signal voltage had the effect of decreasing the primary current while boosting output power, thus improving the power gain ratio. We believe that larger power systems can be built by using larger coils, more piezos and a lower frequency, as long as the aggregate combination is within the resonant frequency range of the components.

The MRA is essentially a means of releasing the electrical energy stored in magnets. As such, it is an AC battery with DC output. It can be used for a portable, self-charging power supply with a solid-state oscillator and rechargeable battery. For those who want a synopsis of the technology, the following paragraphs are offered, but it is strongly suggested that you follow up this reading with a more thorough study of the *KeelyNet* files.

Matter = Energy. To change the matter, change the energy. Creation of a magnet is achieved by a process which causes the matter to be both expanded and compressed at the same time, with the result

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NB: HIGH VOLTAGES WILL DEVELOP ACROSS THE PIEZO AND THE PRIMARY COIL EVEN AT LOW LEVEL INPUT FROM THE SIGNAL SOURCE.

1:1 transformer
150 turns magnet wire

barium titanite piezo

adj. signal source 20-40 KHz

SINE WAVE OUTPUT
Square wave will not approach unity

bridge

DC output

barium ferrite magnet

This is a preliminary circuit!
Future versions will provide more detail.

Magnetic Resonance Amplifier

that a magnet is in a constant state of collapse. This is why magnets attract material with similar lattice structures, as they attempt to fill the energy void which created them. The 'domains' of the magnet are fixed after the process of magnetisation, and the only way to extract electrical energy is to physically spin a coil relative to a magnet.

However, it is also possible to induce virtual rotation by applying the resonant frequency of the magnet, which causes the lattices and the domains to vibrate. However, the power required to do this is greater than the energy released by the virtual rotation. Therefore it is necessary to increase the vibration without using excessive current.

The piezo has a virtually inexhaustible supply of free electrons, and it releases them when it is stressed. Using the piezo in series with the primary coil will almost eliminate primary current, because it is voltage which stresses the piezo, not current. Therefore the piezo can be stressed with very little actual power, and provide the current to the primary coil which vibrates the domains of the magnet.

The piezo is the catalyst for the circulating current with the primary coil. The circulating current is additive, and this is the reason for the high potentials developed across both the piezo and the primary coil.

It is at this point that resonance becomes important. You _must_ have three octaves of separation between the magnet resonant frequency and the signal applied to the piezo. The circulating current is rich in harmonics, and this is necessary for the operation of the circuit.

Although the circuit is simple, it utilises the concepts of *phi*, of virtual rotation, of tetrahedral geometry, piezo and transformer theory, and electrical knowledge. It is not suggested as a beginner project as a result of the high voltages present. For engineers and technicians of experience, it may be difficult to accept that the MRA is above unity. The ramifications are enormous. Hopefully, it will help to build a better world.

Magnetic Resonance Amplifier: Description of Operation
by Joel McClain

The MRA is a series resonant LC circuit in which power gain is attainable as a result of the increase in effective impedance under certain operating conditions. When the series impedance increases, primary current is reduced. When the power available from the secondary coil either remains the same or increases as the primary circuit impedance increases, a power gain occurs.

This is not possible with a series resonant circuit made of conventional materials. Even unity power transfer is considered to be unattainable as a result of accumulated losses in the components which are passive (reactive) devices. Materials and construction methods are chosen for these components based upon the type of application and frequency to be applied, with the goal of minimising losses.

A typical capacitor with polyethylene dielectric has a dielectric constant of 2.3 times that of air. Air has a constant of 1.0, and is the basis for comparison. Titanium dioxide, however, has a dielectric constant maximum of 170, and a corresponding power factor of only 0.0006, comparable with polyethylene, so that the dissipation of primary current in the dielectric is extremely low. This is where the comparison ends, because the titanium composite 'capacitor' is also a piezoelectric device as well as an excellent capacitor.

Heat adversely affects the power factor of most dielectric materials. Titanium zirconate, however, contains polar molecules which rotate as thermal pressure is applied. This rotation increases the dielectric constant if the frequency applied is equal to or lower than the resonant frequency of the dielectric.

At series resonance, the rotation of polar molecules contributes to heat; as the dielectric constant increases, a corresponding release of free electrons occurs as a direct result of the piezoelectric properties of the device.

In application, the MRA is tuned at resonance for maximum power transfer, then detuned slightly for maximum power gain. This relates directly to the use of thermal pressure at resonance, and the effect that this has on continued polar rotation and the release of donor electrons.

The coil or primary of the MRA is a magnetic core which, relative to the fixed capacitance of the piezo, is a tuned permeability device. This is often used in RF devices to attain a stable resonant frequency. Magnetic materials are chosen based upon the operating characteristics of the intended application to reduce eddy currents in the operating range.

In these applications, the resonant frequency of the magnet itself is avoided, as this would 'beat' with the oscillating current. However, in the MRA, this is the exact effect which we want.

The barium ferrite magnet resonates audibly at frequencies which are harmonics of the series resonant frequency. The effect of this in a typical audio application is called harmonic distortion and is not desirable, but, once again, in the MRA this is what we want to occur.

There is energy in the harmonics, and this energy serves both to counter eddy losses as well as to oppose primary current

Dali's goldfish
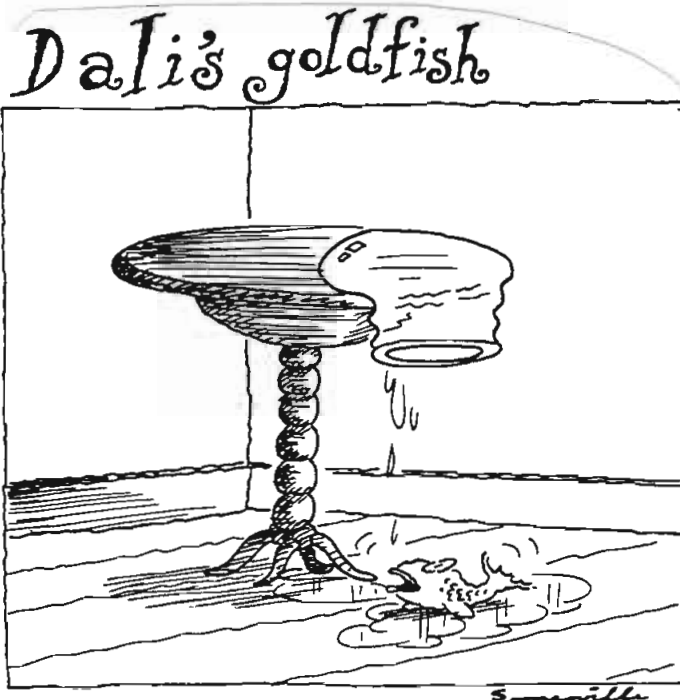
flow, while contributing to circulating current within the resonant circuit.

The net effect of this is that when the MRA is detuned, harmonics of the audible frequency 'beat' with primary current, opposing its flow, while the increase in circulating current couples more power to the secondary, and therefore to the load. This is how the power gain is attained, basically by considering the naturally occurring harmonics as beneficial instead of as undesirable effects to be filtered out.

When the MRA is detuned, the effective impedance increases as seen by the source, while the power available to the load decreases in lesser proportion. This is measurable by using resistive equivalent circuit testing. However, the detuning is load dependent, and slight adjustments are required if the load requirement is greater than the power band of a harmonic interaction.

After retuning, the power to the load will increase in quantum intervals as the circulating current is reinforced by the reaction of the permeable magnet core. This will be seen as slight incremental voltage increases across the load device.

Once the magnet is 'ringing', its frequency and therefore harmonics remain stable as long as the series resonant range is not exceeded. Therefore, the detuning affects the piezo only, and the circulating current increase is a result of the phase relationship between the harmonic and the source.

Voltage amplification is seen across the primary, measurably higher than the source voltage, and this is 'seen' by the secondary. This is not the same thing as a power gain, because the power gain is a direct result of effective impedance.

It should also be noted that the term "virtual rotation" has been applied in describing the operation of the MRA. The comparison is made with a generator, in which relative motion occurs between a coil and magnet. Rather than use physical energy to rotate a mass, the MRA uses resonance to rotate the energy.

This is seen in the polar rotation of the piezo dielectric as well as in the molecular energy occurring in the reactive component of the magnet, i.e., the ringing. The lattice structures of the piezo and magnet are compatible for virtual rotation, and the materials complement each other electrically.

In the past, researchers have noted many effects which occur at aggregate resonance which typically includes a range of three octaves. Anomalous energy gains were referred to as "aetheric". The aether was believed to exist outside of the three physical dimensions and could be 'tapped' for free energy at resonance.

Aetheric energy is said to be limitless, but to vary locally with increases in Earth magnetic fields at sunset and sunrise, like the tides of an infinite ocean. This effect is not thoroughly understood, but has been observed in the MRA as increases in output in the early morning and decreases in the early evening. This is still being studied.

Experimentation will determine the optimum MRA design for a specific range of applications.

Vanguard Sciences Note

The use of Lenz Law (back EMF) is legend in free-energy circuits. When the back EMF is reversed and phase-matched to the forward EMF, you have an increase in efficiency because of the reduction of eddy-current heating through the addition of previously wasted power.

This is generally understood to apply primarily to magnetic flux, yet because frequency is involved, phase-conjugate principles play a major part. Phase conjugation applies to all frequencies regardless of the type of energy being used. Harmony (constructive interference) and dissonance (destructive interference) are controlled using phasing and frequency relationships.

If the rhythmic energy flowing through the mass is made resonant to the mass aggregate resonance, you further reduce the resistance and impedance, thereby achieving unity and, in some cases, over unity.

Most people want clean and simple circuits. These would not entail physical motion or large inductive masses as are encountered in orthodox generators. The MRA circuit fits this approach very nicely because it does not involve moving mass, but rather moving energy harmoniously to produce energy.

Further information on the MRA, its operational characteristics, correlations and updates will be provided as they are documented.

(Source: Written 13 December 1994; downloaded from KeelyNet BBS, PO Box 870716, Mesquite, Texas 75187, USA; dataline (214) 324 3501. KeelyNet is a free alternative sciences BBS sponsored by Vanguard Sciences.)

Editor's Note:

This article is causing quite a stir in alternative science research circles. NEXUS would appreciate any feedback on results you may care to share with others.

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— THE RULE OF NINES —
RESONANT GEOMETRY AND THE ZERO POINT

by Joel McClain

The word "rule" has several different meanings: as a form of law, as a form of dominion, or as a measuring standard. This text uses the word in all three contexts to define the effect of the supreme chord—the trinity of harmony—in the universe.

In the late 19th and early 20th centuries, independent researchers began to notice the 'anomalous' effects of applying resonance to a controlled experiment. Then, as now, this area of 'science' is far from the mainstream. The results of those early experiments, such as the lightning of Tesla and the motors of Keely, have been ignored both as science and as history—at least in America.

Elsewhere, the work of Tesla is revered and has been 'amplified' by paid research. With the creation of the Magnetic Resonance Amplifier, or MRA, perhaps history and science will have to take a second look. The theories behind the MRA are the same as those of Tesla, Keely, Russell, Bearden, King and others. The application, however, in a closed-loop ZPE device, takes a sharp turn away from effect and into application.

Look at either a piece of quartz or a magnet, and you are looking at trapped energy. Tap the quartz, and you will get a spark as the electrical potential of the quartz instantaneously jumps. Spin a magnet relative to a coil of wire, and electrical current flows in the wire. How do we extract the power of these materials without the attendant physical energy required to either tap or spin them?

Matter = Energy. To convert matter to energy, resonate the matter.

To achieve energy output which is above the energy applied at resonance, use three octaves, and there will be three harmonious notes in each octave for a total of nine resonant frequencies.

These notes occur naturally when the base frequency applied is three octaves above the magnet's resonant frequency, and equal to the resonance of the quartz.

In this way, the potential applied to the quartz 'taps' it, without the need to use physical force. The result is electrical output. Connect this output to a coil around a magnet, and the domains of the magnet, which comprise a tiny portion of its weight, and which do all of the 'work' in a generator, will be forced to spin. This spin is called "virtual rotation", because it is the spin of energy without the spin of the matter.

However, this is only one application. How can we be sure that the 'rule' applies anywhere else, much less universally? We have to go very far back in history to find the answer to this question. It involves *phi*, the universal constant, and delves deeply into the construction of Earth's great tetrahedrons.

Nest two tetrahedrons and put them in an orb, and you have a miniature model of the Earth's magnetic field. Where the 'bases' of the tets touch the orb, you have the latitudes where all of the ancient pyramids were built. The 'top' and 'bottom' points are the north and south poles. This shows the naturally occurring magnetic resonance of Earth as an 'orb' in rotation. Connect lines between the points, and you have a map of the ley lines which were mapped very accurately thousands of years ago.

Models of the Earth as described above have been found in the ruins of every civilisation which built pyramids. Earth is, as it must be, a model of the natural harmonic relationship which exists at every level, from the universe itself to the subatomic. The relationships have been understood for a long, long time. This knowledge, and the use of the energy which it can be used to provide, was believed to be the curriculum of 'mystery schools' in Egypt and Greece.

If you look at the lattice geometry of silicon or germanium, you will find tetrahedrons. In his famous "ring", Hans Nieper allowed the silicon of transistors to achieve self-resonance, with the result that the circuit became lower in weight. This implies that resonance may also be the key to countering the effects of gravity or, rather, the effect called gravity, for gravity is an effect, not a force.

Gravity is 'suspended' when you cancel the spin of the energy which comprises matter by resonating the matter. By virtually rotating the lattices, the subatomic particle spin virtually stops, like a spinning object seen with a synchronised strobe light. Because gravity is a complex quadrupole effect, when you stop the spin, you lose the effect.

The matter which comprises the quartz and the magnet of the MRA is comprised of cube lattices, each of which is a nested tetrahedron at 45 degrees relative to the polar axis of the molecules. Together in a circuit, there is a 90-degree phase separation, which allows the resonant energy to create the needed harmonics to fully resonate both materials. This is the application of the rule of nines.

It is a standard, the standard of the geometry of the universe; it is the ruling law of nature; and it is the measuring tool for all electrical and mechanical interaction. If, as some have suggested, the ancient 'sacred' knowledge was shared by extraterrestrials to permit the construction of the pyramids, and if, as we have seen, resonance is the key to anti-gravity as well as to free energy, then the tetrahedron has very far-reaching implications.

I THINK IT'S LOVELY THAT YOU WISH TO SPEND YOUR LIVES TOGETHER... BUT ONLY IF YOU'RE IN AN AREA ZONED FOR DUAL OCCUPANCY.

COUNCIL